

ACUTUS
MEDICAL

Guided Ablation
Therapy for Cardiac
Arrhythmias



- This presentation contains forward-looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding our future results of operations and financial position, business strategy, prospective products, availability of funding, ability to maintain existing, and establish new, strategic collaborations, licensing or other arrangements, the scope, progress, results and costs of developing our products or any other future products, the potential market size and size of the potential patient populations for our products, the timing and likelihood of success of obtaining product approvals, plans and objectives of management for future operations, the scope of protection we are able to establish and maintain for intellectual property rights covering our products, and future results of anticipated products, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.
- This presentation concerns anticipated products that are or are expected to be under clinical investigation and which have not yet been approved for marketing by the U.S. Food and Drug Administration (FDA). No representation is made as to these products' safety or effectiveness for the purposes for which it is being or will be investigated.

1

Pure-play electrophysiology company /
Comprehensive, differentiated portfolio

2

Large, growing and underpenetrated
market

3

Paradigm-shifting ablation guidance
technology, future in electroporation

4

Efficient commercial model and access
to labs

5

Global presence via marketing alliance
with Biotronik

6

Established and attractive
reimbursement

7

Robust patent portfolio

8

Highly experienced management team

Global Electrophysiology (“EP”) Ablation Market



~\$5.7 Billion
~1.1 million ablation procedures
Global 2019 EP ablation supplies market ⁽¹⁾ ⁽²⁾

~13%
Annual growth rate of ablation
procedures worldwide since 2016 ⁽¹⁾



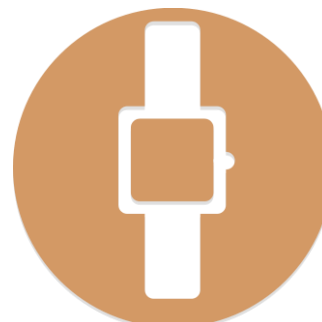
Key drivers of the arrhythmia epidemic



Progressive disease,
function of aging



Western
lifestyle



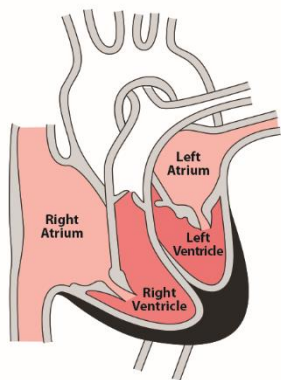
Increasing utilization of
self monitoring devices



Well established
reimbursement in
developed markets

(1) Based on internal Company estimate

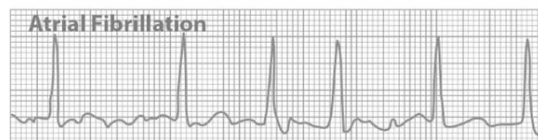
(2) Market size reflects disposable products



Normal Sinus Rhythm



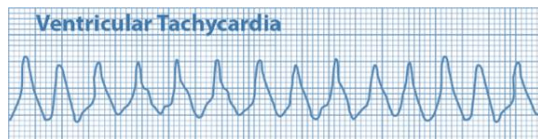
Atrial Fibrillation (AF)



Supraventricular Tachycardias (SVTs)



Ventricular Tachycardias (VT)



2019 prevalence ⁽¹⁾	Number of procedures in 2019 ⁽¹⁾	2019 market size ⁽¹⁾⁽²⁾	Current market challenges
30.0mm	475,000	\$3.4bn	<ul style="list-style-type: none"> ▪ Difficult to map ▪ Long and unpredictable procedures (2-6hrs) ▪ Patients often need a repeat procedure
17.1mm	516,000	\$1.7bn	<ul style="list-style-type: none"> ▪ Often unable to locate the source of arrhythmia ▪ Current technologies cannot address 40-60% of SVT patients who also have AF ⁽¹⁾
5.5mm	90,000	\$0.6bn	<ul style="list-style-type: none"> ▪ Unstable and aggravated by contact with the ventricular wall ▪ Long and unpredictable procedures (2-6hrs)
~52.6mm	~1,081,000	~\$5.7bn	

Attractive ~\$5.7bn market for electrophysiology products that has grown ~13% annually since 2016 ^{(1) (2)}

(1) Based on internal Company estimates
(2) Market size reflects disposable products

Lack of Progress, Standardization



- No real improvement in outcomes for decades (Persistent AF) ⁽¹⁾
- No agreement on best ablation strategies
- Industry still looking for answers

Patients



- High therapy failure rates
- ~50% of ablations for Persistent AF result in recurrence within 12 months ⁽²⁾

Providers



- Antiquated platforms not able to diagnose unstable arrhythmias
- Long procedures with unpredictable durations
- Physical toll on physicians

Payors

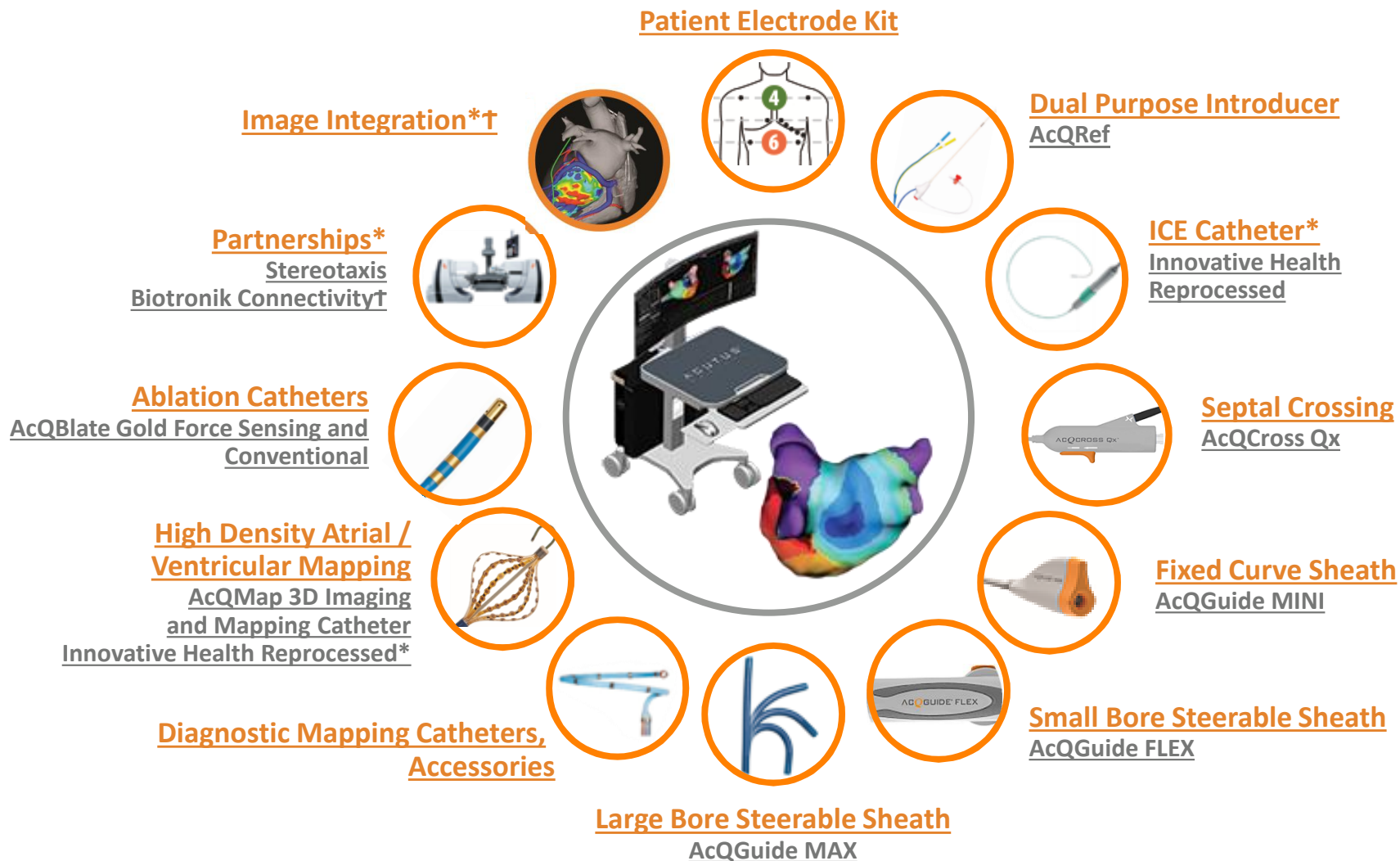


- High cost of retreatment procedures
- High cost of hospitalization from complications
- Drug therapy → low success rates and increased risk of adverse side effects ⁽¹⁾

(1) Based on internal Company estimates

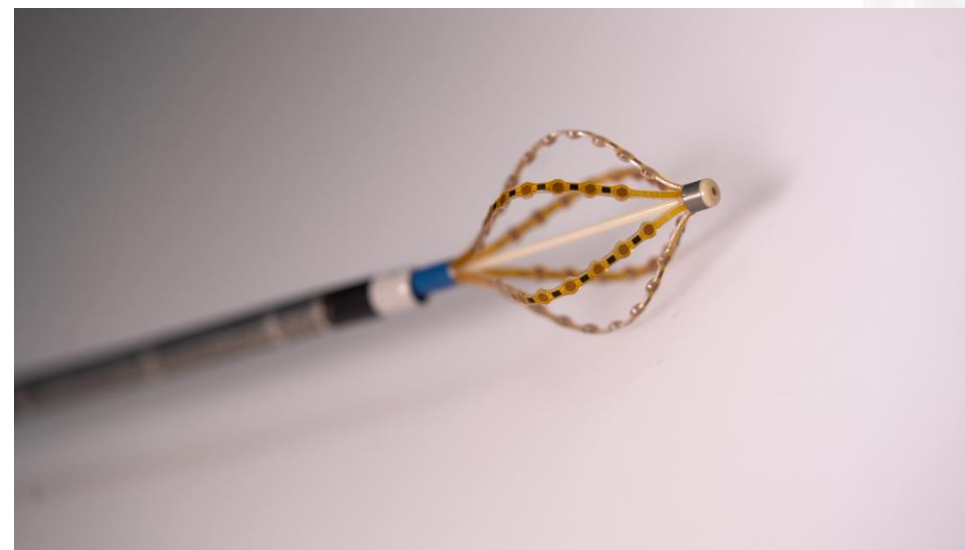
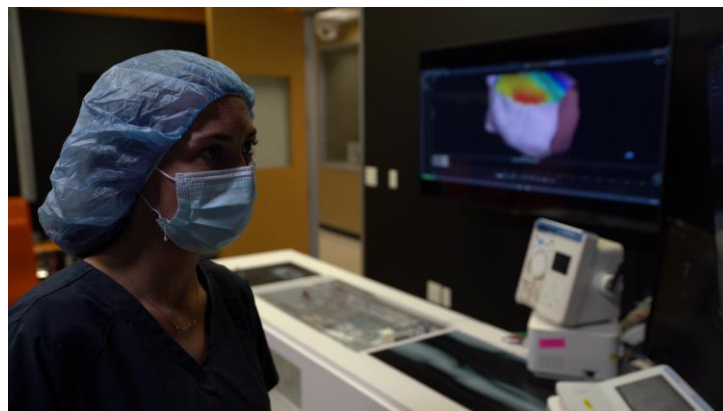
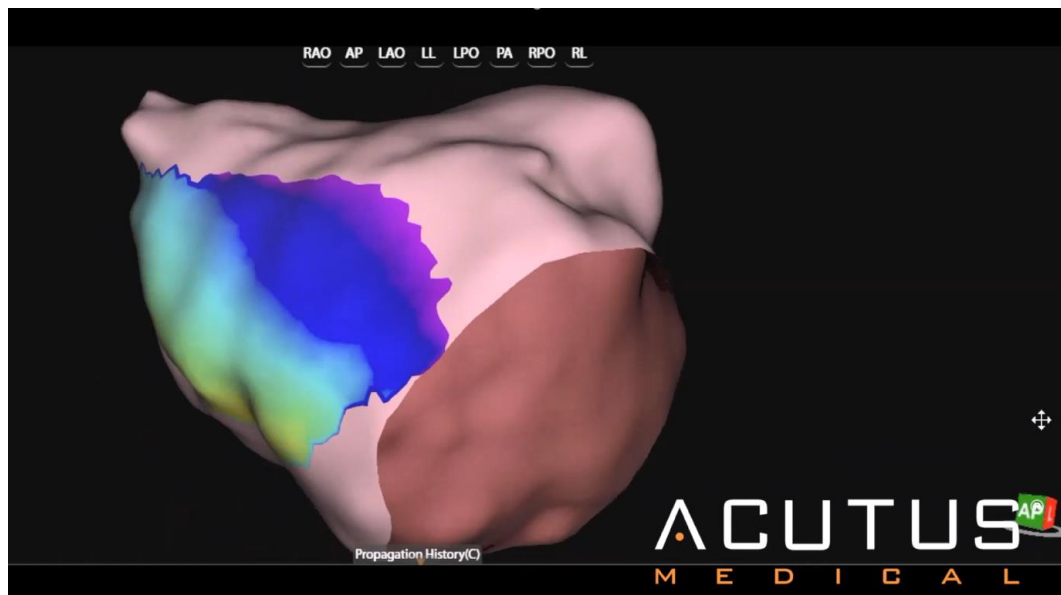
(2) Kornej et al. Time-dependent prediction of arrhythmia recurrences during long-term follow-up in patients undergoing catheter ablation of atrial fibrillation: The Leipzig Heart Center AF

Ablation Registry. Published online www.nature.com/scientificreports.



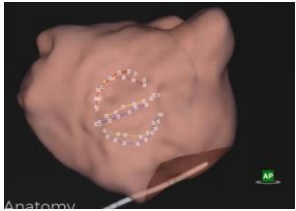
* Partnerships

† Development, not currently marketed

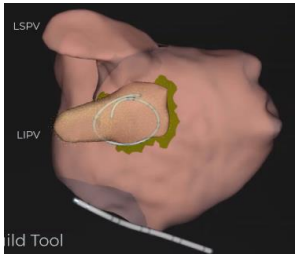


Whole-Chamber Views of Complex Rhythms in Under 3 Minutes

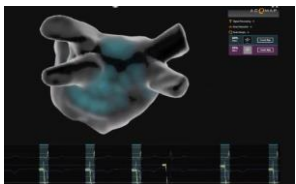
Full Function System -- Individualized for Physicians and Patients



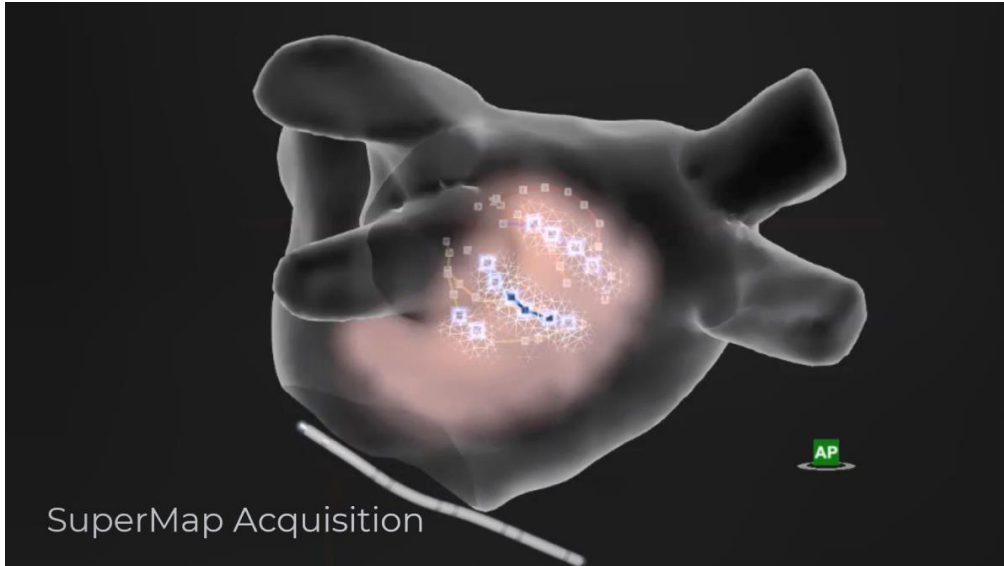
**Ultrasound
Anatomy**



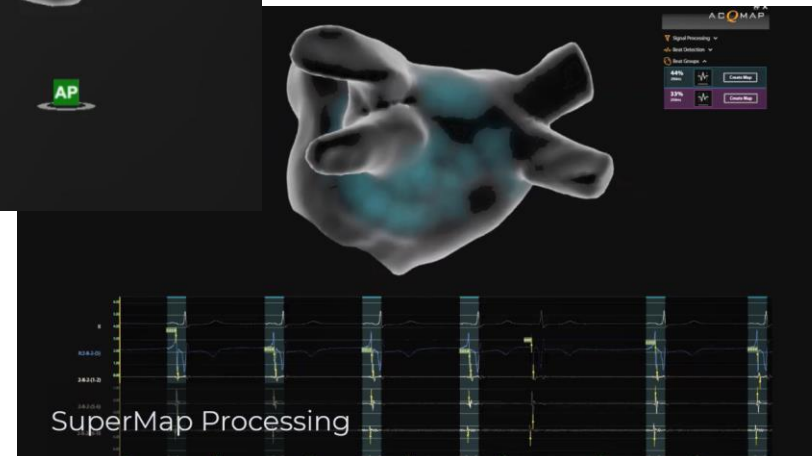
Vein Build Tool



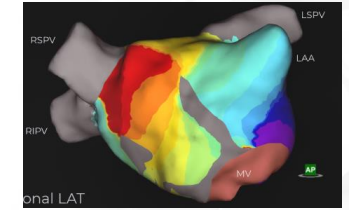
**SuperMap
Automated Processing**



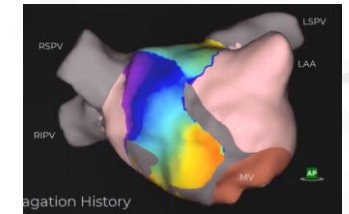
SuperMap Acquisition



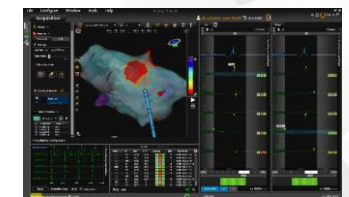
SuperMap Processing



**Isochronal Local
Activation Time Map**



**Propagation History
Map**



**Conventional
Contact Map**

Why Is the Market Less Than 5% Penetrated? ⁽¹⁾

How and Where Acutus Can Add Value / Solve Problems

	High Benefit			Significant Benefit		Benefit	
	Atrial Fibrillation			Supraventricular Tachycardias			
Impediments To Penetration	Paroxysmal Afib	Persistent Afib	Long Standing Persistent Afib	Atypical Flutter	Complex Tachycardia	Other Atrial Arrhythmias	Ventricular Tachycardia (Research) ⁽²⁾
	~23%	~15%	~6%	Remaining ~48%			~8%
Long Procedures							
Procedures of Unpredictable Duration							
Poor Outcomes at Ablation							
Extreme MD Skill Required							
General Cardiologists Reluctant to Refer							

Percentages above based on company estimates of ~1,081k WW electrophysiology procedures in 2019 including 475k atrial fibrillation procedures (of which 53% were for paroxysmal atrial fibrillation, 33% were for persistent atrial fibrillation and 14% were for long-standing persistent atrial fibrillation), 516k SVT procedures and 90k VT procedures

Acutus Comparative Outcomes for *Persistent AF**

Meaningful Clinical Improvement vs. Stagnant Standard of Care

Variable	Acutus UNCOVER AF 12M ^[1] N = 127	Biosense PRECEPT 15M ^[2] N = 381	AtriCure CONVERGE Endo Only 12M ^[3] N = 51	AtriCure CONVERGE Convergent 12M ^[3] N = 102	Abbott STAR AF II PVI 12M ^[4] N = 61	Abbott STAR AF II PVI + CFAE 12M N = 244	Abbott STAR AF II PVI + Lines 12M N = 244
	Circulation: Arrhythmia and Electrophysiology						
Patient Population	Persistent AF	Persistent AF	Persistent & Long-Standing Persistent AF		Persistent AF		
Re-ablation allowed in “blanking period”	None	3 - 6 Months	None	None	3 Months	3 Months	3 Months
Freedom from AF > 30 s after one procedure , with or without AAD	73%	NR	51%	71%	61%	54%	50%
Freedom from AF > 30 s after multiple procedures , with or without AAD*	93%	NR	NR	NR	79%	70%	70%
Freedom from AF/AT/AFL > 30 s after one procedure , with or without AAD	69.2%	61.7%	49%	65.7%	52%	48%	44%

UNCOVER AF (AcQMap): We believe fundamentally different mapping approach & therapy strategy (non-contact mapping & map/treat/re-map strategy) leads to improved success rates

1: Willems et al; Charge Density Mapping for Atrial Fibrillation: *Circ Arrhythm Electrophysiol*. 2019;12:e007233.

2: Mansour M, et. al; Persistent atrial fibrillation ablation with contact force sensing catheter: The prospective multicenter PRECEPT Trial, *JACC: Clinical Electrophysiology* (2020)

3: De Lurgio D et. al; Hybrid Convergent Procedure: Epicardial and Endocardial Ablation for the Treatment of Persistent Atrial Fibrillation -CONVERGE Randomized Controlled Clinical Trial Results, *HRS Late-Breaking Clinical Trials* (2020)

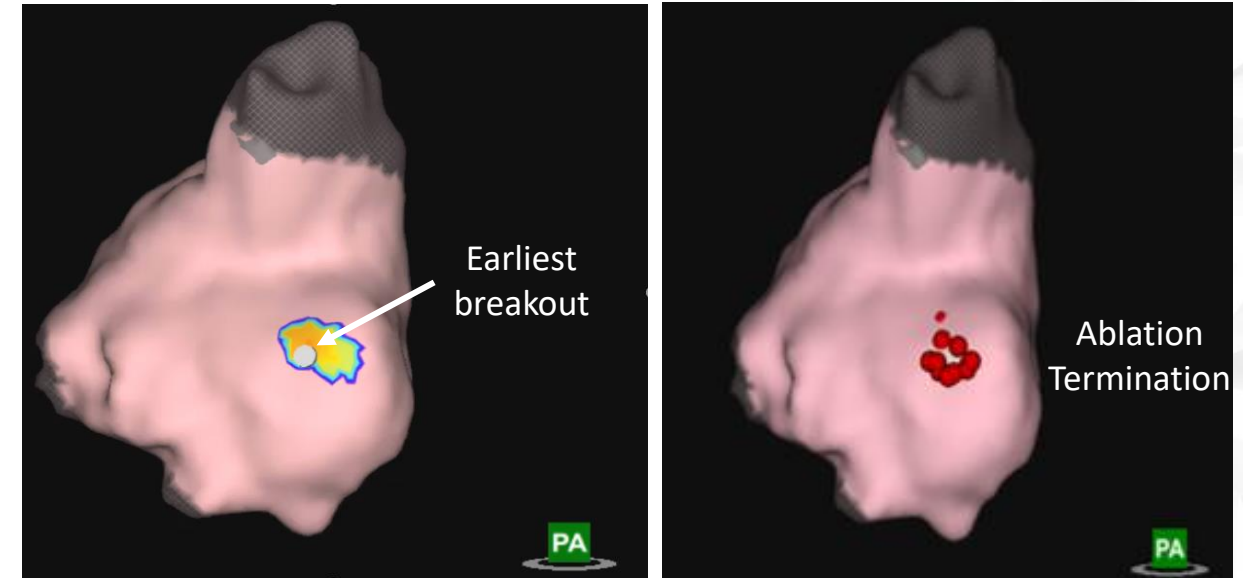
4: Verma A, et al; Approaches to Catheter Ablation for Persistent Atrial Fibrillation N Engl J Med 2015;372:1812-22. Estimated from KM curve data available in NEJM

*Outcome comparisons are difficult due to difference in the detailed effectiveness outcome definitions

NR = Not Reported

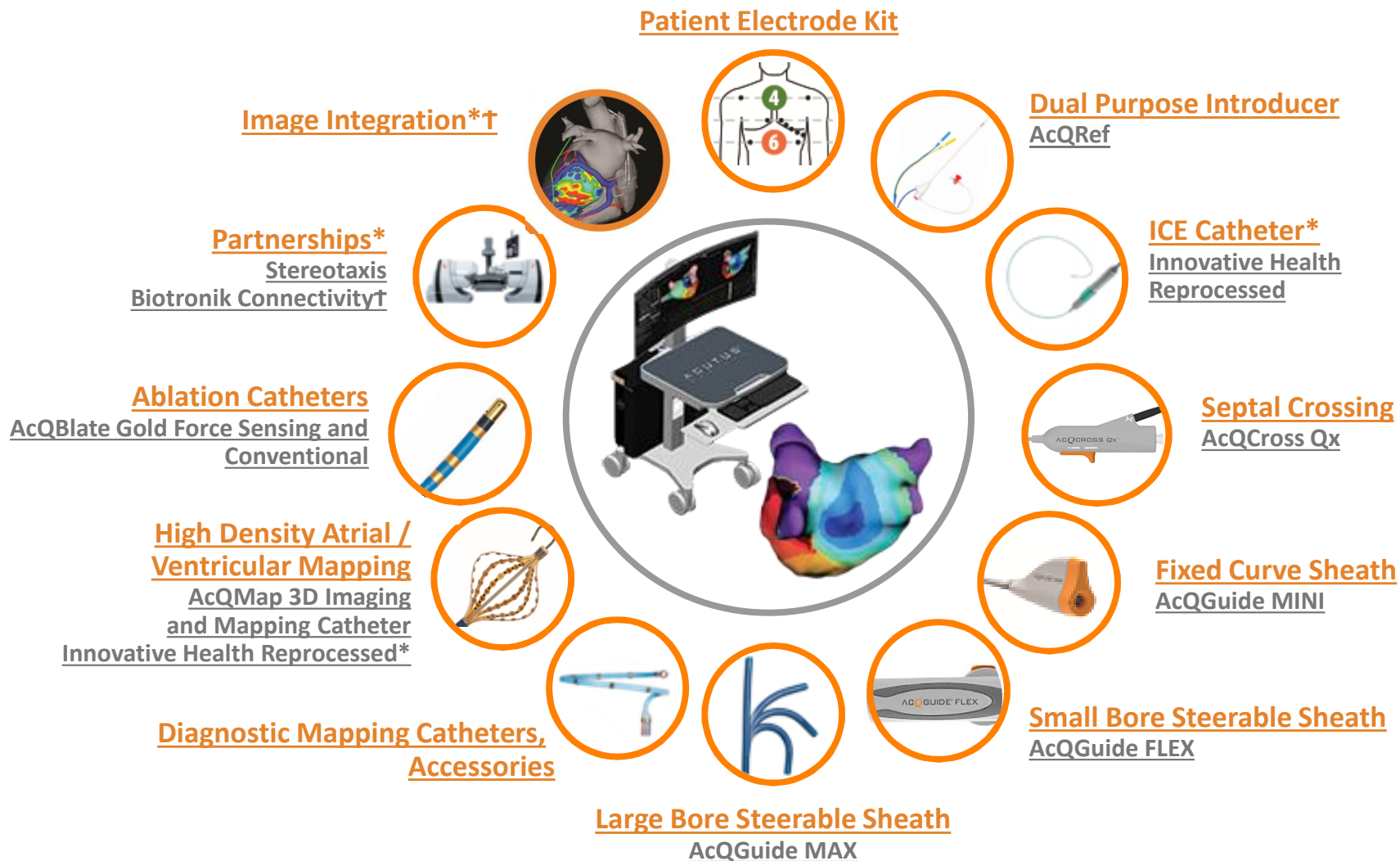
- Atrial tachycardias (AT) can be observed following up to 25%^[1-5] of AF ablation procedures
- Prior studies have reported average procedure times of **4-7 hours**⁶ in follow-up ablation procedures to remedy these tachycardias
- In a “first use” study published in the Journal of Interventional Cardiac Electrophysiology, the Acutus SuperMap algorithm was used in 7 consecutive AT patients to successfully identify and ablate **ALL** areas of clinical significance⁷
- Mean procedure time was **56.4 minutes (+/- 12.1 minutes)**⁷

Case Example: Procedure Time 48 minutes Post-ablation patient was non-inducible



The authors concluded that SuperMap proved “safe, fast and feasible in identifying and guiding ablation in the setting of regular atrial tachycardias following index AF Ablation”⁷

Our Comprehensive Portfolio and Partnerships

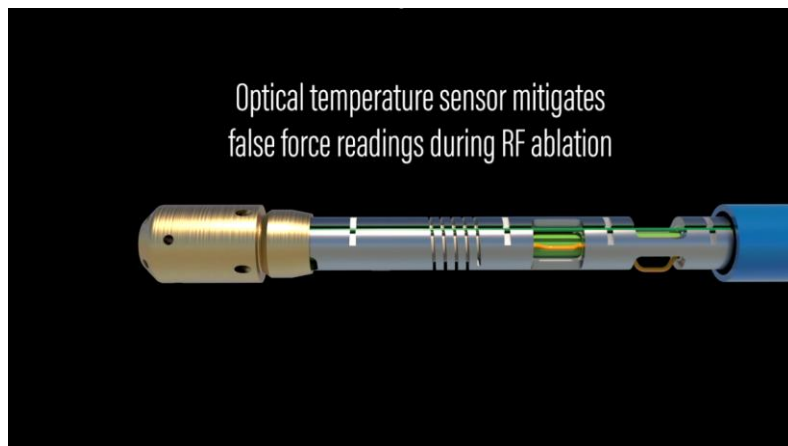


* Partnerships

† Development, not currently marketed

AcQBlate Force-Sensing Ablation Catheter and System

First and only commercially available irrigated force-sensing catheter in the market featuring a **Gold Tip Electrode**



All Ablation Catheters and Electronic Components CE Marked

Ablation Catheters and Electronic Components Commencing IDE trials in 1H 2021



AcQBlate FORCE RF capable today -- designed for Pulsed Field Ablation compatibility (timing TBD)

Pulsed Field Ablation is a promising new energy modality under investigation for cardiac ablations

WHAT IS IT?

Sequence of **very short duration high voltage pulses** that selectively kill tissue by **irreversible electroporation** delivered catheter

ADVANTAGES

SAFETY

- **Ablation is non-thermal**
 - Traditional ablation relies of extreme heat (RF) or extreme cold (Cryo) to kill tissue
- **Selectively destroys cardiac cells**
 - No / low risk of destroying tissue outside the heart (esophagus, nerves, etc.)

SPEED

- **Creates complete and durable lesions in milliseconds**
 - RF ablations take 5 to 30 seconds per lesion and Cryo ablations take 3 to 4 minutes

ACUTUS' PROGRAM

We are developing flexible energy generators and a portfolio of electroporation-capable ablation catheters

- Single generator for both RF and Pulsed Field Ablation
- Force sensing, irrigated, gold-tip ablation catheter capable of delivering both pulsed field and RF energies
- Acutus pulsed field ablation program is in early stages of development with promising pre-clinical results

ELECTROPORATION LESIONS WITH FORCE SENSING, IRRIGATED, GOLD-TIP ABLATION CATHETER (PRECLINICAL DATA, PORCINE MODEL)



Contact voltage map at index PFA procedure and non-contact activation maps created at 14-day follow-up demonstrating lesion durability in a porcine model.

Photomicrograph showing selective cardiac cell ablation

Patient Safety & Physician Confidence

- Spring-tensioned safety needle, reduces risk to patient as well as staff
- Length-matched needle to introducer locks together for control & ease of use

Enhanced Procedural Efficiency

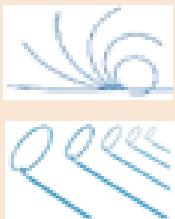
- Reduced need for wire exchanges, facilitates repositioning
- For use mechanically or with RF energy

Addresses Multiple Significant High Growth Markets

- All left-sided EP ablations
- Structural heart procedures – including LAA and Mitral Repair



Strategic Highlights



Full
Portfolio

- Each company will have a full EP portfolio in its market
- Mapping system + access + diagnostic + therapeutic catheters



Digital
Connectivity

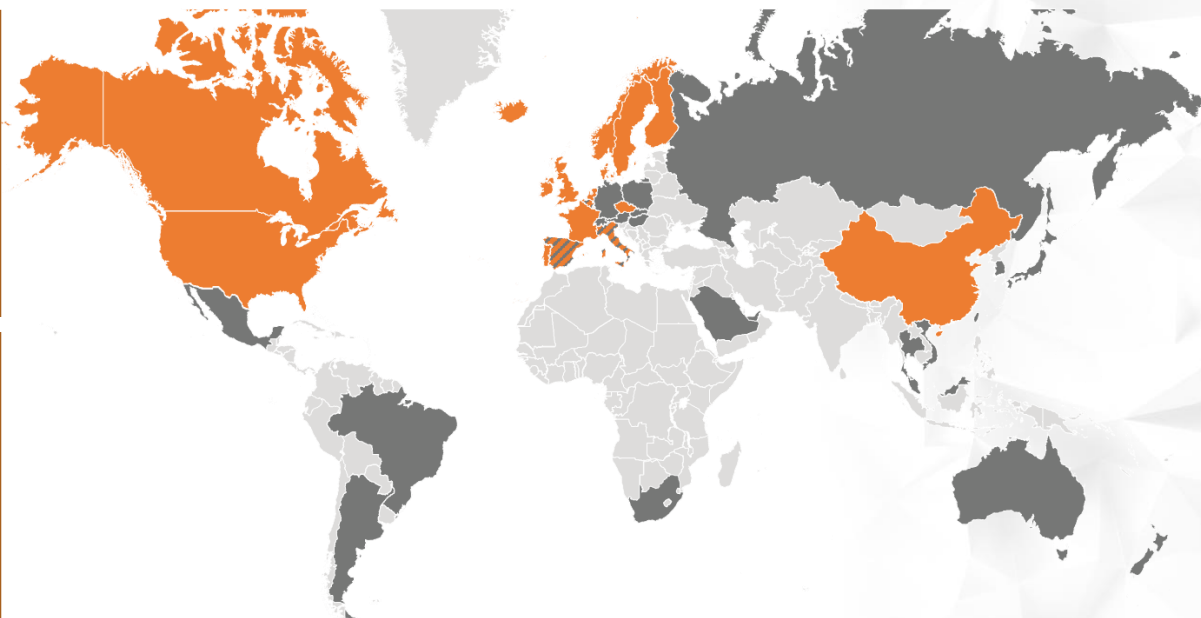
- Expect to obtain access to Biotronik's digital infrastructure
 - Real-time case monitoring and review
 - Remote system diagnostics / software push



CRM
Leverage

- Expected to enable bundling of ablation/CRM product lines OUS

Global Reach in Developed Markets



- Acutus to sell its core mapping, ablation, and accessory products and private (Acutus) labeled products manufactured by Biotronik
- Same as above, but private (Acutus) labeled products manufactured by Biotronik distribution rights to be phased in over time
- Biotronik to sell Acutus' core mapping, ablation and accessory products under private (Biotronik) label
- Not yet assigned

Acutus' guided ablation therapy platform fully integrated with the Stereotaxis EP robot

- Synchronized anatomy rotation between robotics and imaging system
- Allows precise targeting of pulmonary vein and non-pulmonary vein triggers



Have a favorite? Go ahead and use it!

Acutus has partnered with Innovative Health to bring **28+** reprocessed catheters to our open platform

- More clearances for EP devices than any other reprocessing company
 - The more devices are cleared, the higher the hospital savings
- Constant flow of new clearances ensures constant growth in reprocessing savings

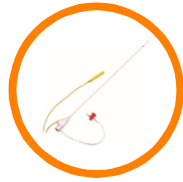




AcQMap
System



Patient
Electrode Kit



Introducer



ICE
Catheter



Septal
Crossing



Steerable
Sheath



Mapping
Catheter
(Contact)



Mapping
Catheter
(Non-Contact)



Force Sensing
Ablation
Catheter

Availability ⁽¹⁾

	AcQMap System	Patient Electrode Kit	Introducer	ICE Catheter	Septal Crossing	Steerable Sheath	Mapping Catheter (Contact)	Mapping Catheter (Non-Contact)	Force Sensing Ablation Catheter
US	Today	Today	Today	Today	Today	Today	1H 2021 ⁽¹⁾	Today	2H 2022 ⁽¹⁾
EU	Today	Today	Today	N/A	Today	Today	Today	Today	Today
Incremental Revenue / Procedure		✓	✓	✓	✓	✓	✓	✓	✓

Model and Key Revenue Drivers

Up to \$10K⁽¹⁾ revenue potential for disposables / procedure

Concentrated customer base in the U.S.⁽¹⁾



~1,000
EPs

&



~750
Hospitals

perform



~400k
cardiac ablation
procedures each year



Grow installed base

We view our available market as including *every* EP lab – this is *not* a replacement market



Increase procedures per system per week

Convert multiple EP physicians (and fellows) in each account

Spread usage across all arrhythmia types -- from simple to complex, including ventricular



Expand revenue per procedure

Today
Future



Patient
Electrode
Patches



High-
Density
Mapping



Access
Technologies



Force
Sensing
Point
Ablation



Full Suite
of Septal
Crossing
Products



Diagnostic
Catheters

- Continue installed base build
- Drive adoption and incremental revenue per case via:
 - Successful product launches of additional/improved accessory products. Launches planned for first half of 2021 include:
 - Force Sensing Ablation system (CE markets only)
 - Improved patch kits
 - Expanded left heart access line (septal crossing line expansion and new sheaths)
 - Gen 2 basket mapping catheter
 - Expanded capabilities and integration with Stereotaxis robot
 - Conventional diagnostic catheters
 - Continue to hire and intensively train the best therapy specialists and reps in the EP industry
 - Key papers accepted and published in persistent AF, redo AF, atrial tachycardia
- Continued commercial momentum with Biotronik global marketing alliance, Stereotaxis partnership and build momentum with Innovative Health Partnership in reprocessing
- Commence US IDE trials for ablation system in Atrial Flutter and Paroxysmal and Persistent Atrial Fibrillation
- Complete First in Man and commence Pilot Trial for Pulsed Field Ablation and specialized VT mapping catheter

Thank you for your time!

The logo for Acutus Medical is centered within a large orange circle. The word "ACUTUS" is written in a large, white, sans-serif font, with a small dot above the letter 'A'. Below "ACUTUS", the word "MEDICAL" is written in a smaller, white, sans-serif font, with wide letter spacing.

ACUTUS
M E D I C A L

Issuer	Acutus Medical, Inc.
Exchange / Ticker	NASDAQ: AFIB